

## **ABSTRACT**

Provided are nucleotide sequences which encodes a sugar-signalling transcription factors capable of activating a promoter of a gene encoding an enzyme involved in the synthesis or deposition of starch e.g. in response to sugar levels in a plant. Preferred sequences encode WRKY proteins such as the sugar signaling in barley2 (SUSIBA2) factor and variants thereof, and act on promoters which comprise at least one SURE element and/or W box element to which the transcription factor binds (e.g. promoters such as isol, sbel, sbeIIb, ssI, agpaseS). The invention also provides related methods and materials e.g. for activating, modulating, and investigating the elements present in such promoters.